

Notice of Allowability

Application No.

10/512,050

Applicant(s)

HARA ET AL.

Examiner

Art Unit

Tai Duong

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment 07/06/2007.
2. ☒ The allowed claim(s) is/are 1,2 and 4-30.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 7/6/07;8/16/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

Claim 1 is allowed over the prior art of record because none of the prior art discloses or suggests a viewing angle magnification liquid crystal display having *the combination* of the feature "said reflection polarization comprises at least two layers and *said retardation layer disposed between said at least two layers*, and said reflection polarization *having respective selective reflection wavelength bands of polarized light superimposed on each other to conduct collimation for a diffusion light source*" and the feature "the reflection polarizer is a circular polarization type reflection polarizer transmitting circularly polarized light but selectively reflecting reverse circularly polarized light, and *the retardation layer comprises a layer having a front retardation of almost zero and a retardation of $\lambda/8$ or more relative to incident light incoming at a direction inclined from the normal direction by 30 degrees or more*". Claims 2, 7-13, 16 and 17 are also allowed because they depend on claim 1.

Claim 4 is allowed over the prior art of record because none of the prior art discloses or suggests a viewing angle magnification liquid crystal display having the feature "the reflection polarizer (a) is a linear polarization type reflection polarizer (a2) transmitting one of linearly polarized lights perpendicular to each other, but selectively reflecting the other thereof, the retardation layer (b) comprises a layer (b1) having a front retardation (in the normal direction) of almost zero and a retardation of $\lambda/4$ or more relative to incident light incoming at a direction inclined from the normal direction by 30° or more, layers (b2) each having a front retardation of about $\lambda/4$

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disposed on both sides of the layer (b1), one of the layers (b2) being disposed between the retardation layer (b1) and a corresponding linear polarization type reflection polarizer (a2) and the other of the layers (b2) being disposed between the retardation layer (b1) and another linear polarization type reflection polarizer (a2), the layer (b2) on the incidence side is arranged at an angle of $45^{\circ} \pm 5^{\circ}$ or an angle of $-45^{\circ} \pm 5^{\circ}$ relative to the polarization axis of the linear polarization type reflection polarizer (a2) on the incidence side, the layer (b2) on the emission side is arranged at an angle of $45^{\circ} \pm 5^{\circ}$ or an angle of $-45^{\circ} \pm 5^{\circ}$ relative to the polarization axis of the linear polarization type reflection polarizer (a2) on the emission side, and the layer (b2) on the incidence side and the layer (b2) on the emission side are arranged at an arbitrary angle formed between the slow axis of the layer (b2) on the incidence side and the slow axis of the layer (b2) on the emission side. Claims 14, 15, 18, 25 and 26 are also allowed because they depend on claim 4.

Claim 5 is allowed over the prior art of record because none of the prior art discloses or suggests a viewing angle magnification liquid crystal display having the feature "the reflection polarizer (a) is a linear polarization type reflection polarizer (a2) transmitting one of linearly polarized lights perpendicular to each other, but selectively reflecting the other thereof, the retardation layer (b) comprises two biaxial retardation layers (b3) each having a front retardation of about $\lambda/4$ and an Nz factor of 2 or more, the slow axis direction of the layer (b3) on the incidence side is arranged at an angle of $45^{\circ} \pm 5^{\circ}$ or an angle of $-45^{\circ} \pm 5^{\circ}$ relative to the polarization axis of the linear polarization type reflection polarizer (a2) on the incidence side, the slow axis direction of

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the layer (b3) on the emission side is arranged at an angle of $45^{\circ} \pm 5^{\circ}$ or an angle of $-45^{\circ} \pm 5^{\circ}$ relative to the polarization axis of the linear polarization type reflection polarizer (a2) on the emission side, and the layer (b3) on the incidence side and the layer (b3) on the emission side are arranged at an arbitrary angle formed between the slow axis of the layer (b3) on the incidence side and the slow axis of the layer (b3) on the emission side. Claims 19-22, 27 and 28 are also allowed because they depend on claim 5.

Claim 6 is allowed over the prior art of record because none of the prior art discloses or suggests a viewing angle magnification liquid crystal display having the feature "the reflection polarizer (a) is a linear polarization type reflection polarizers (a2) transmitting one of linearly polarized lights perpendicular to each other, but selectively reflecting the other thereof, the retardation layer (b) comprises one biaxial retardation layer (b4) having a front retardation of about $\lambda/2$ and an Nz factor of 1.5 or more, the slow axis direction of the retardation layer (b4) on the incidence side is arranged at an angle of $45^{\circ} \pm 5^{\circ}$ or an angle of $-45^{\circ} \pm 5^{\circ}$ relative to the polarization axis of the linear polarization type reflection polarizer (a2) on the incidence side, the slow axis direction of the retardation layer (b4) on the emission side is arranged at an angle of $45^{\circ} \pm 5^{\circ}$ or an angle of $-45^{\circ} \pm 5^{\circ}$ relative to the polarization axis of the linear polarization type reflection polarizer (a2) on the emission side, and the polarization axes of the two linear polarization type reflection polarizers (a2) are almost perpendicular to each other".

Claims 20, 23, 24, 29 and 30 are also allowed because they depend on claim 6.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai Duong whose telephone number is (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



TOAN TON
PRIMARY PATENT EXAMINER



TVD

09/07